

REMARKS

The Examiner is thanked for the performance of a thorough search. By this amendment, Claims 1, 4, 5, 9, 11 and 22 are amended. Claims 25-28 are new. Support for Claims 25-28 can be found on page 11, line 13 to page 12, line 10 of the specification.

ALLOWED CLAIMS

In the Office Action, Claims 14 and 21 are allowed.

SUMMARY OF THE REJECTIONS

In the Office Action Claims 1, 4-13, 15-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,471,405 by Marsh in view of U.S. Patent No. 5,500,635 by Mott.
(§103 language)

Claims 1 and 4

The amendment of independent Claims 1 and 4 is supported by the specification as filed (see page 16, line 23 to line 10 of page 17, and lines 17-23 of page 17 and lines 1-5 of page 18).

Claims 1 and 4 are amended to clarify that the sensors signals are converted to numerical values based on the magnitude of the impacts experienced by a shoe and that a **logical counting mechanism** is used to sum the numerical values to form an accumulated value. The sum of the values are then compared to a predetermined threshold value for estimating the remaining life span of the shock absorbing capability.

The cited references do not disclose any logical counting mechanism for determining the remaining life span. In fact, *Marsh* teaches away from using a logical counting mechanism because *Marsh* is not concerned with the summing of numerical values to form an accumulated value. Instead, *Marsh* specifically teaches the use of a complicated force envelope and force profile based on data collected by the sensor (column 7, lines 2-7). The complexity of the force envelope and force profile in *Marsh* is underscored by the use of complex parameters such as the “attack parameter”, the “decay parameter”, the “sustain parameter”, and the “release parameter.” Part and parcel of the *Marsh* complexity is the high cost of manufacturing the *Marsh* shoe. In contrast, Applicants’ shoe is simple and relatively cheap to manufacture.

According to *Marsh*, the “attack parameter” is for analyzing the slope and shape of the “attack parameter” (column 7, lines 8-15) in order to gain “information regarding the shock capability of the shoe). Clearly, a mere counting mechanism, such as that of Claims 1 and 4, is not capable of calculating the slope and shape of the attack parameter. Further, *Marsh* teaches the use of a “decay parameter” to represent the decay of the force applied to the force sensor (column 7, lines 16-26). Again a mere counting mechanism, such as that of Claims 1 and 4, is not capable of calculating a decaying force. Similarly, the use of the “sustain parameter and the release parameter as taught by *Marsh* cannot be measured by a counting mechanism, such as that of Claims 1 and 4.

Marsh does not use a counting mechanism because *Marsh* is preoccupied with using complicated mechanisms for the purpose of “force

analysis” and “outputs, in a preferred form, a force model comprising attack, decay, sustain and release information” (see abstract).

Each shoe (note that *Marsh* requires data from both shoes whereas applicants’ claims require data from only one shoe), “transmits coded information regarding the sensed profile.”

Thus, it can be appreciated that *Marsh* does not teach or suggest the use of a counting mechanism for determining the remaining life span by merely calculating a sum of the numerical values corresponding to the impacts experienced by one shoe. Instead, *Marsh* relies on expensive and complex force analysis.

Similarly, *Mott* does not teach or suggest the use of a counting mechanism for determining the remaining life span by merely calculating a sum of the numerical values corresponding to the impacts experienced by one shoe.

Claims 5-13, 15-20

Claims 5-13 and 15-20 are either directly or indirectly dependent on Claim 4 and include all the limitations of Claim 4, and therefore are allowable for at least the reasons provided herein with respect to Claim 4. Furthermore, it is respectfully submitted that Claims 5-13 and 15-20 recite additional features that independently render Claims 5-13 and 15-20 patentable over *Marsh* and *Mott*.

Claim 22-24

The limitations of Claim 22 speak to the method of counting the numerical values to form a sum and such a sum is then compared to the predetermined lifespan value. Claim 22 further states that the remaining life span is based on such a comparison. Thus, arguments presented herein in respect to claims 1

and 4 apply to claim 22. In other words, neither *Marsh* nor *Mott*, either alone or in combination teach or suggest the mere summing of numerical values for determining the remaining life span of the shoe's shock absorbing capability.

Claims 23-24 are directly dependent on Claim 22 and include all the limitations of Claim 22, and therefore are allowable for at least the reasons provided herein with respect to Claim 22. Furthermore, it is respectfully submitted that Claims 23-24 recite additional features that independently render Claims 23-24 patentable over *Marsh* and *Mott*.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 838-4311.

The Commissioner is authorized to charge any fees due to Applicants' Deposit Account No. 50-2207.

Respectfully submitted,
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